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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,644	10/27/2000	Gopalan Raman	10002988-1	6504

7590 07/28/2004  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O.Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

WILLIAMS, KEVIN D

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/698,644

Applicant(s)

RAMAN, GOPALAN

Examiner

Kevin D. Williams

Art Unit

2854

*Am*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daigneault in view of Mehta and Silverbrook (US 6,431,704).

Daigneault teaches a method for printing a secure image on media using an inkjet printing device, the method comprising printing an underlayer 4 using an inkjet printing device where the underlayer defines an identification indicia. Daigneault teaches the underlayer being a watermark. Watermarks are preprinted images that inherently receive a subsequent secure printed image that goes on top of the watermark when the media is printed by the end user. Daigneault teaches that the underlayer can be printed from a group of various colors (col. 6, lines 51-53) that are independent of an ink color of the image to be printed by the end user. Daigneault teaches the identifying indicia being related to the secure image, a storage device 28 for storing information specifying the underlayer, a control device 14 for selecting image information from the storage device to print the underlayer, an input device, and an underlayer wherein examination of a front surface allows viewing of the identification indicia for

Art Unit: 2854

authenticating the secure image, wherein the identification indicia is derived from the secure image.

Daigneault does not teach the underlayer penetrating into a front surface of the media, the secure image completely covering the underlayer, the inkjet printing device for printing the underlayer being the same inkjet printing device for printing the overlayer, the underlayer being printed using one of magenta and cyan ink, the information from the input device being used for printing the overlayer, the underlayer being formed from a series of small ink drops that are sufficiently small to prevent viewing with the naked eye and under normal light, and examination of a back surface opposite the front surface allowing viewing of the identification indicia for authenticating the secure image.

Mehta teaches an underlayer penetrating (clm. 9) into a front surface of the media, the underlayer being printed using one of magenta and cyan ink (col. 2, lines 8-10), the underlayer being formed from a series of small ink drops that are sufficiently small to prevent viewing with the naked eye and under normal light (col. 4, lines 32-39), where examination of a back surface (col. 2, lines 30-34) opposite the front surface allows viewing of the identification indicia for authenticating the secure image.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daigneault to have the penetrating ink as taught by Mehta, in order to provide a hidden security feature which can be used to authenticate a document by exposure to ultraviolet light as taught by Mehta (col. 1, lines 63-65).

Silverbrook teaches that inkjet printing devices can be used to print images that appear in the foreground of media (Fig.1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Daigneault to have the inkjet printing device of Daigneault be used to print the overlaying images, in order to save time and money by only using one device to print the underlayer and the overlayer.

With respect to claim 3, Daigneault teaches an underlayer in the form of background watermarks that are formed into designs such as company logos. Watermarks are preprinted background images that are subsequently printed on top of by the end user. It would be obvious to subsequently print an image that completely covers the underlayer, in order to efficiently utilize printing media resources by printing on the entire sheet of paper.

3. Claims 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daigneault (US 6,334,678) in view of Mehta (US 5,944,881) and further in view of Fujimoto (US 6,707,564).

Daigneault teaches a method identifying a source of an inkjet printed image, the method comprising printing an underlayer 4 on a frontside of print media using an inkjet printing device. Daigneault teaches the underlayer being a watermark. Watermarks are preprinted images that inherently receive a subsequent secure printed image that goes on top of the watermark when the media is printed by the end user. Daigneault teaches a storage device 28 for storing information specifying the underlayer, a control device

14 for selecting image information from the storage device to print the underlayer, and an input device.

Daigneault does not teach the source of the printed secure image being determined by examination of a back surface opposite the frontside to reveal a mirror image of the underlayer for identifying the characteristic indicia, the underlayer being printed using one of magenta and cyan ink, where the underlayer has a characteristic indicia uniquely identifying the inkjet printing device. .

Mehta teaches an underlayer being printed using one of magenta and cyan ink (col. 2, lines 8-10), where examination of a back surface (col. 2, lines 30-34) opposite the frontside reveals a mirror image of the underlayer for identifying the characteristic indicia.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daigneault to have the penetrating ink as taught by Mehta, in order to provide a hidden security feature which can be used to authenticate a document by viewing a backside of the document as taught by Mehta (col. 2, lines 30-34).

Fujimoto teaches identification indicia (col. 2, lines 35-44) having a characteristic indicia uniquely identifying an inkjet printing device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Daigneault to have the identification indicia as taught by Fujimoto, in order to ensure that a secure image can be authenticated.

4. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daigneault in view of Mehta and Fujimoto as applied to claims 10, 12, and 13 above, and further in view of Silverbrook (US 6,431,704).

Daigneault in view of Mehta and Fujimoto teach the claimed invention except for printing the secure image with the inkjet printing device and an input device for printing the secure image.

Silverbrook teaches that inkjet printing devices can be used to print images that appear in the foreground of media (Fig.1), and information from an input device 24 being selected for printing the images.

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Daigneault to have the inkjet printing device of Daigneault be used to print the overlaying images, in order to save time and money by only using one device to print the underlayer and the overlayer.

5. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daigneault in view of Mehta and Liechti (US 5,038,153).

Daigneault teaches a method for printing a secure image on media using an inkjet printing device, the method comprising printing an underlayer 4 using an inkjet printing device where the underlayer defines an identification indicia, the shape of the identifying indicia of the underlayer being derived from the shape of the secure image. Daigneault teaches the underlayer being a watermark. Watermarks are preprinted images that inherently receive a subsequent secure printed image that goes on top of the watermark when the media is printed by the end user.

Daigneault does not teach the underlayer penetrating into a front surface of the media, where examination of a back surface opposite the front surface allows viewing of the identification indicia for authenticating the secure image, the secure image completely covering the underlayer, the inkjet printing device for printing the underlayer being the same inkjet printing device for printing the overlayer, the inkjet printing device for printing the underlayer being different from the inkjet printing device for printing the overlayer.

Mehta teaches an underlayer penetrating (clm. 9) into a front surface of the media, where examination of a back surface (col. 2, lines 30-34) opposite the front surface allows viewing of the identification indicia for authenticating the secure image.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daigneault to have the penetrating ink as taught by Mehta, in order to provide a hidden security feature which can be used to authenticate a document by exposure to ultraviolet light as taught by Mehta (col. 1, lines 63-65).

Daigneault teaches an underlayer in the form of background watermarks that are formed into designs such as company logos. Watermarks are preprinted background images that are subsequently printed on top of by the end user. It would be obvious to subsequently print an image that completely covers the underlayer, in order to efficiently utilize printing media resources by printing on the entire sheet of paper.

Liechti teaches that inkjet printing devices can be used to print images that appear in the foreground of media (Fig.1). Liechti also teaches that it is conventional in the art to print indicia, such as company logos, in the foreground of media using an



Art Unit: 2854

inkjet printing device. While the examiner's position is that the primary reference Daigneault teaches the limitation, "the shape of the identifying indicia of the underlayer being derived from the shape of the secure image", it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daigneault to print company logos in the foreground, from which the identifying indicia could be derived, in order to enhance the aesthetic quality of the media by providing matching background and foreground images.

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Daigneault to have the inkjet printing device of Daigneault be used to print the overlaying images, in order to save time and money by only using one device to print the underlayer and the overlayer.

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Daigneault to have the inkjet printing device of Liechti be used to print the overlaying images, since Liechti discloses that the device is capable of printing quality foreground images.

### ***Response to Arguments***

6. Applicant's arguments filed 11/17/2003 have been fully considered but they are not persuasive.

With respect to claims 10-14, applicant argues that none of the cited references teach the underlayer having a characteristic indicia uniquely identifying the inkjet

printing device. Applicant's arguments with respect to claims 10-14 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claims 1-3, 5, and 15-20, applicant argues that none of the cited references teach the identification indicia being derived from the secure image. The limitation "the identification indicia being derived from the secure image" is not a positively claimed method step. Also, the term "derived", in the above limitation, does not define a specific relationship between the identification indicia and the secure image. Therefore, the limitation is not sufficient to patentably distinguish the claims from the prior art of record. Giving the limitation its broadest reasonable interpretation, the identification indicia and the secure image could both be derived from the same alphabet. With respect to claim 18, the identifying indicia of the prior art is derived from the shape of the secure image, because both of the images are of similar size since they are both contained on the same sheet.

With respect to claims 1-3, 5, and 15-20, applicant argues that Silverbrook does not address the printing of an underlayer, and therefore cannot make any teaching or suggestion regarding an underlayer. The examiner does not rely on Silverbrook for any teaching or suggestion of printing an underlayer. The examiner relies on Silverbrook for its teaching of ink jet printing devices that print images appearing in the foreground of media. The only feature that distinguishes Daigneault from Silverbrook is the particular type of ink that Daigneault uses. Both the Daigneault and the Silverbrook devices are conventional inkjet printers. Silverbrook discloses that conventional inkjet printers are capable of printing images that appear in the foreground of media. Since the

Daigneault printer is also a conventional inkjet printer, it would have been obvious to print the foreground images with the Daigneault printer using conventional ink.

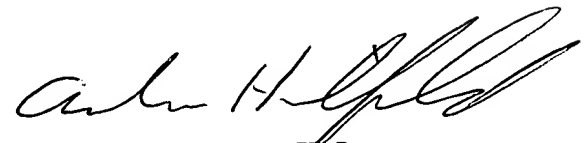
**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (571) 272-2172. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KDW  
July 22, 2004



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